



## Product Information

### CN4-BELL • *CompactPCI*<sup>®</sup> Quad 10/100Mbps Ethernet Controller

Document No. 2441 • Edition 2009-09

*Ethernet has evolved as the networking technology standard. A recent powerful trend is Ethernet in a fieldbus environment. Beginning at the actor/sensor module, up to the process control system, forward to the management database - Ethernet offers total connectivity for all areas of an enterprise.*

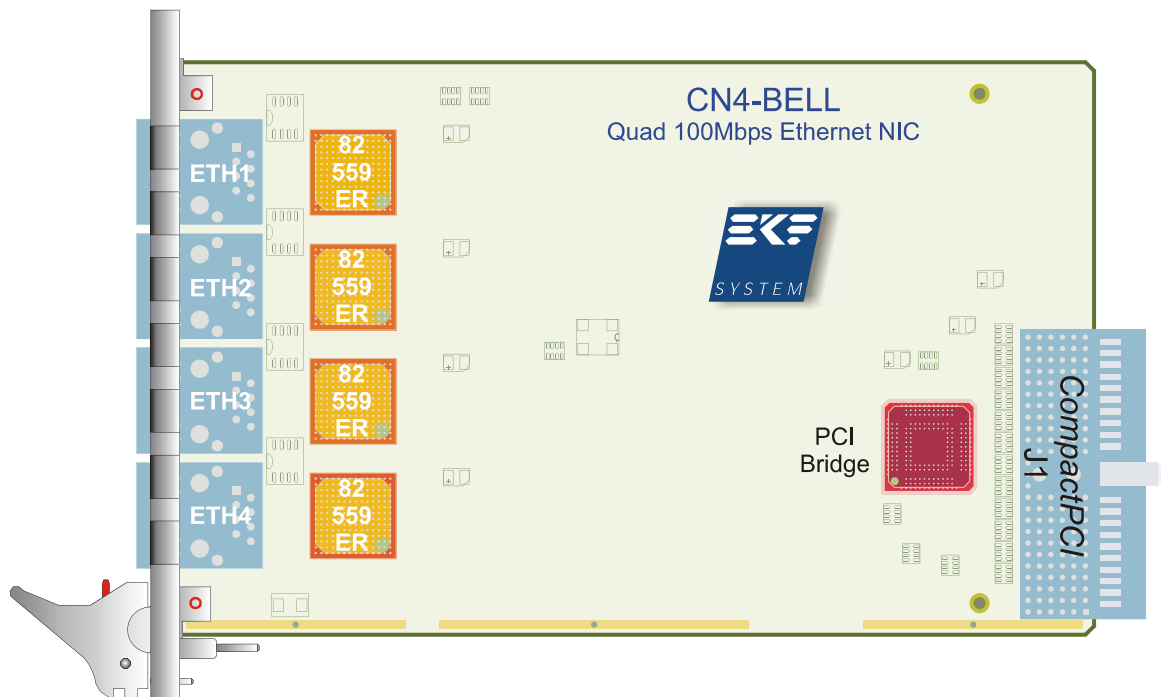
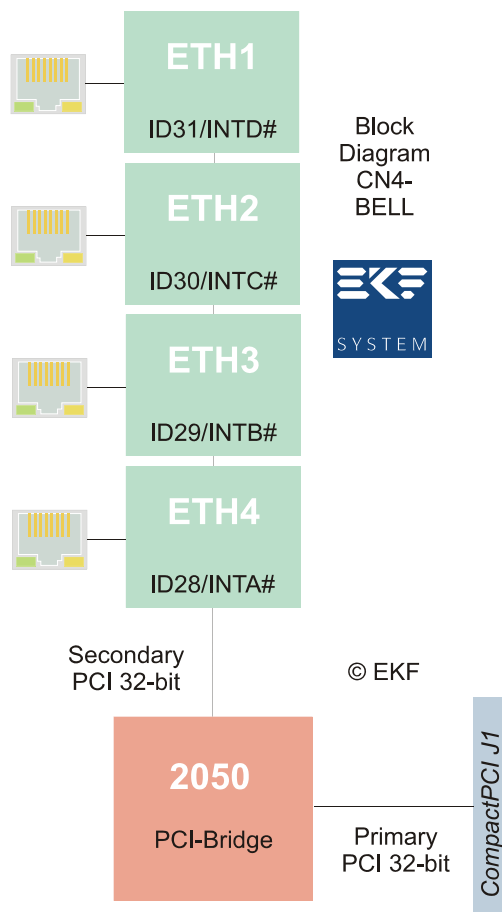
*With the CN4-BELL, EKF introduces a quad Fast Ethernet networking interface controller for *CompactPCI*<sup>®</sup> systems. Any individual RJ45 jack provides for attachment to 10Base-T and 100Base-TX based LANs across a CAT5/6 twisted-pair cable, suitable for distances of up to 105m. Featuring auto-negotiation and full-duplex mode, the maximum data transfer rate is 200Mbps at any port.*

As a 3U board (single size Eurocard), the CN4-BELL replaces up to four single-port Fast Ethernet NICs (Network Interface Controller). Consequently, the CN4-BELL occupies four individual MAC- respective IP-addresses.

The CN4-BELL is suitable for a wide range of applications with need for multiple networking controllers, e.g. firewall, gateway, router, or as a fieldbus data concentrator. High availability systems profit from the redundancy achieved when using several Ethernet ports in parallel.

Drivers are available by download for all popular operating systems (e.g. Windows, Linux).

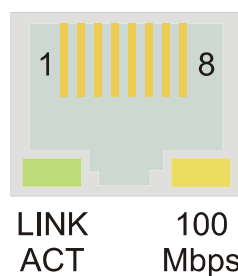




CN4-BELL \* Assembly Drawing

Technical Specifications		
Printed Circuit Board	Dimensions	3U Eurocard (100x160mm <sup>2</sup> ), front panel 4HP (20.3mm) EMI shielded, ejection lever
Ethernet	Connector ETH1 - ETH4	4 x twisted pair RJ45, 8-position, wired as a hostadapter, 1:1 cabling to any hubs, switches, routers, transceivers, cross wiring required for direct connection to a second hostadapter
	Cable Type	Category 5/6, UTP (Unshielded Twisted Pair) or STP (Shielded Twisted Pair), length up to 105m maximum
	Data Transfer Rate	10Base-T 10Mbps (20Mbps @ full-duplex) 100Base-TX (Fast-Ethernet) 100Mbps (200Mbps @ full-duplex), auto-negotiation for best performance
	Controller Chip	4 x Intel 82559ER PCI Ethernet controller, single chip MAC and PHY (Transceiver)
	LED Array	Integrated LEDs (within any of the RJ45 jacks), Activity/Link, 100Mbps
CPCI Bus	Connector J1	32-Bit, 33MHz, DMA bus master, PCI-to-PCI bridge between external (backplane) CPCI bus and internal (local) PCI Bus
Power Consumption	Connector J1	+5V ±5% 0.05A max. +3.3V ±0.3V 0.85A max. V <sub>IO</sub> +5V or +3.3V 0.01A max.
Temperature Humidity	Commercial Grade Version	Operating temperature 0-70°C Humidity 5-90% non condensing
Software	Drivers	Implicit supported by recent operation systems (e.g. Linux, Windows 2000/XP), additionally Intel offers drivers for download for most operating systems (e.g. VxWorks)
MTBF		0.269 * 10 <sup>6</sup> h

Specifications are subject to change



On special request, the PCB can be coated/sealed/underfilled to withstand harmful environment conditions.



CN4-BELL Conformal Coating (Red Acrylic)



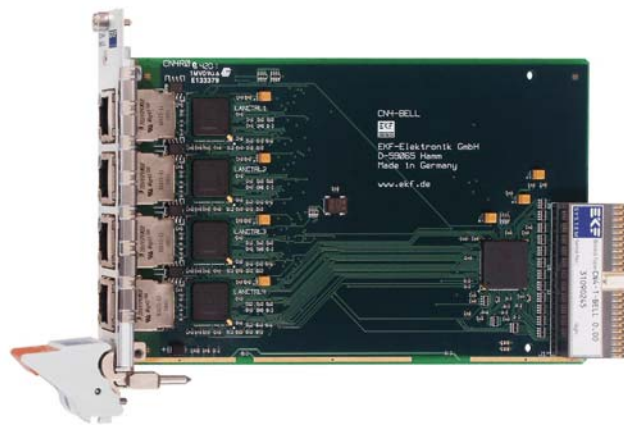


CN4-BELL Conformal Coating (Transparent Acrylic)



Ordering Information

Ordering No.	Description
CN4-1-BELL	3U CompactPCI board, quad Fast Ethernet NIC
CN4-2-BELL	3U CompactPCI board, dual Fast Ethernet NIC
CR9-1-ADAPT	Front panel expansion to 6U, mounting kit



EKF Elektronik GmbH  
 Philipp-Reis-Str. 4  
 59065 HAMM  
 Germany



Phone +49 (0)2381/6890-0  
 Fax +49 (0)2381/6890-90  
 Internet [www.ekf.com](http://www.ekf.com)  
 E-Mail [sales@ekf.com](mailto:sales@ekf.com)